

? s particulate?? or (aluminum(w)hydroxide) or (colloidal(w)gold) or (polystyrene(w)latex)

120587 PARTICULATE??  
263672 ALUMINUM  
89941 HYDROXIDE  
7702 ALUMINUM(W) HYDROXIDE  
63137 COLLOIDAL  
147315 GOLD  
9908 COLLOIDAL(W) GOLD  
67924 POLYSTYRENE  
49500 LATEX  
2445 POLYSTYRENE(W) LATEX

S1 140254 PARTICULATE?? OR (ALUMINUM(W) HYDROXIDE) OR (COLLOIDAL(W) GOLD) OR (POLYSTYRENE(W) LATEX)

? s aggregat?

S2 296739 AGGREGAT?

? s s1 and s2

140254 S1  
296739 S2  
S3 3984 S1 AND S2

? s sugar or trehalose or carbohydrate

130732 SUGAR  
8905 TREHALOSE  
164252 CARBOHYDRATE

S4 288154 SUGAR OR TREHALOSE OR CARBOHYDRATE

? s s3 and s4

3984 S3  
288154 S4  
S5 75 S3 AND S4

? rd

>>>Duplicate detection is not supported for File 340.

>>>Records from unsupported files will be retained in the RD set.

...examined 50 records (50)

...completed examining records

S6 57 RD (unique items)

? s s6 and py<=1994

Processing

57 S6  
25468139 PY<=1994  
S7 25 S6 AND PY<=1994

? s prevent? or reduc?

Processing

1807128 PREVENT?  
3247642 REDUC?  
S8 4715057 PREVENT? OR REDUC?

? s s7 and s8

25 S7  
4715057 S8  
S9 7 S7 AND S8

? t s9/3,k,ab/1-7

9/3,K,AB/1 (Item 1 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2003 Inst for Sci Info. All rts. reserv.

02638350 Genuine Article#: LT278 Number of References: 19

Title: STRUCTURE AND COMPOSITION OF APPLE JUICE HAZE (Abstract Available)

Author(s): BEVERIDGE T; TAIT V

Corporate Source: AGR CANADA, SUMMERLAND RES STN/SUMMERLAND V0H

1Z0/BC/CANADA/

Journal: FOOD STRUCTURE, 1993, V12, N2, P195-198

ISSN: 1046-705X

Language: ENGLISH Document Type: ARTICLE

Abstract: Haze obtained from commercial apple juice over the 1991 season contained from 11.4 to 29.0% protein (w/w), trace quantities of both metal cations and polymeric **carbohydrate**, and gave strong responses to tests for phenolic compounds indicating a protein-phenol haze. SDS-PAGE of the 2-mercaptoethanol **reduced**, guanidinium hydrochloride dissociated haze particles gave a continuous smear indicating a population of molecules ranging from 29K to greater than 205K daltons. Transmission electron microscopy of negatively stained preparations revealed the presence of spherical bodies only partially penetrable by stain and possessing a subunit structure. These particles were embedded in a material presumably polymerized in such a way as to form chain-like **aggregates**. Protein-phenol haze particles consist of two structural components: spherical particles, probably protein, embedded in polymerized phenolics.

, 1993

...Abstract: 4 to 29.0% protein (w/w), trace quantities of both metal cations and polymeric **carbohydrate**, and gave strong responses to tests for phenolic compounds indicating a protein-phenol haze. SDS-PAGE of the 2-mercaptoethanol **reduced**, guanidinium hydrochloride dissociated haze particles gave a continuous smear indicating a population of molecules ranging...  
...embedded in a material presumably polymerized in such a way as to form chain-like **aggregates**. Protein-phenol haze particles consist of two structural components: spherical particles, probably protein, embedded in...

9/3, K, AB/2 (Item 2 from file: 34)  
DIALOG(R) File 34:SciSearch(R) Cited Ref Sci  
(c) 2003 Inst for Sci Info. All rts. reserv.

00888380 Genuine Article#: FD806 Number of References: 451  
Title: MICROBIAL EXOPOLYMER SECRETIONS IN OCEAN ENVIRONMENTS - THEIR ROLE(S) IN FOOD WEBS AND MARINE PROCESSES (Abstract Available)  
Author(s): DECHO AW  
Corporate Source: SUNY STONY BROOK, MARINE SCI RES CTR/STONY BROOK//NY/11794 ; US GEOL SURVEY, DIV WATER RES/MENLO PK//CA/94025  
Journal: OCEANOGRAPHY AND MARINE BIOLOGY, 1990, V28, P73-153  
Language: ENGLISH Document Type: REVIEW  
Abstract: Microbial exopolymers are high molecular-weight mucous secretions of bacteria and microalgae. They range from tight capsules which closely surround cells to the loose-slime matrix associated with **aggregates**, sediment, detritus, and other surfaces. By virtue of their physical properties, exopolymers are highly adsorptive, and readily sequester dissolved organic matter and metals. Exopolymers are largely polysaccharide in composition, and can exist in 'dissolved' and 'particulate' form. These secretions serve many functions which enhance the survival and competitive success of microbial cells under natural conditions. While they have been well studied in other disciplines, the investigation of exopolymers in marine systems has been largely overlooked. Accumulating evidence, however, suggests that they influence a wide range of marine processes such as **aggregate** formation in the water column, benthic larval settlement, microscale biogeochemical processes, sediment stability, and metal sequestering by hydrothermal vent bacteria. In addition, when microbial consumers feed they coincidentally ingest exopolymers (and their adsorbed compounds). These secretions may, therefore, represent an effective vehicle to transfer nutrients and metals through lower marine food webs. This suggests a dynamic role for exopolymers in marine systems. As ocean paradigms are further revised, the potential roles of these secretions must certainly be addressed.

The present review examines the properties, processes, and methodologies pertinent to the study of microbial exopolymers in ocean systems. Literature has been purposefully cited from various other disciplines where exopolymer-related processes have been well studied. A focus is made on attempting to understand the interactive roles of these secretions in food webs and other marine processes.

, 1990

...Abstract: range from tight capsules which closely surround cells to the loose-slime matrix associated with **aggregates**, sediment, detritus, and other surfaces. By virtue of their physical properties, exopolymers are highly adsorptive...

...matter and metals. Exopolymers are largely polysaccharide in composition, and can exist in 'dissolved' and '**particulate**' form. These secretions serve many functions which enhance the survival and competitive success of microbial...

...Accumulating evidence, however, suggests that they influence a wide range of marine processes such as **aggregate** formation in the water column, benthic larval settlement, microscale biogeochemical processes, sediment stability, and metal...

...Research Fronts: MEUSE; PHYTOPLANKTON BACTERIOPLANKTON COUPLING; CILIATE PROTOZOAN; COASTAL MICROBIAL PLANKTON)

89-1539 001 (ASPARAGINE-LINKED OLIGOSACCHARIDES; **SUGAR CHAINS**; ENDOGENOUS RECEPTORS FOR NEOGLYCOPROTEINS; LECTIN HISTOCHEMISTRY; MULTINUCLEATE GIANT-CELLS)

89-1583 001 (MID-ATLANTIC...)

...OF WHEAT STRAW; MUNICIPAL SOLID-WASTE)

89-2399 001 (DENITRIFICATION ACTIVITY IN STREAM SEDIMENTS; NITRATE REDUCTION; NITROGEN NUTRIENT CONCENTRATIONS)

89-2474 001 (THIOBACILLUS-FERROOXIDANS MERCURY ION RESISTANCE GENES; GRAM-NEGATIVE BACTERIA...)

...BACTERIAL LECTINS LATCH; MANNOSE RECEPTORS; CELL-SURFACE MOLECULES)

89-7714 001 (O1 VIBRIO-CHOLERAE LIPOPOLYSACCHARIDES; **SUGAR COMPOSITION**; POLYSACCHARIDE PORTION)

9/3, K,AB/3 (Item 1 from file: 340)  
DIALOG(R) File 340: CLAIMS(R)/US Patent  
(c) 2003 IFI/CLAIMS(R). All rts. reserv.

Dialog Acc No: 2554623 IFI Acc No: 9429302

Document Type: C

WATER-SOLUBLE DELIVERY SYSTEMS FOR HYDROPHOBIC LIQUIDS

Inventors: Fuisz Richard C (US)

Assignee: Fuisz Technologies Ltd

Assignee Code: 27763

Publication (No,Date), Applic (No,Date):

US 5370881 19941206 US 9381338 19930629

Publication Kind: A

Calculated Expiration: 20111206

(Cited in 022 later patents)

Cont.-in-part Pub(No),Applic(No,Date): ABANDONED US 8740371  
19870420; US 4855326 US 88169838 19880318; US 5096492  
US 90602485 19901024; ABANDONED US 91787245

19911104

Division Pub(No),Applic(No,Date): US 5011532 US 88283742  
19881213

PCT Pub(No,Date),Applic(No,Date): WO 938699 19930513 WO  
92US9447 19921030

Section 371: 19930629

Section 102(e): 19930629  
Priority Applic (No, Date): US 9381338 19930629; US 8740371 19870420;  
US 88169838 19880318; US 90602485 19901024; US 91787245 19911104;  
US 88283742 19881213

Abstract: A solid delivery system for rapid release of hydrophobic liquids such as oleaginous materials, flavor oils, mineral oil and the like comprising a water-soluble flash-flow-formed matrix containing a micronized dispersion of a substantially hydrophobic liquid.

Publication (No, Date), Applic (No, Date):

...19941206

...PCT Pub (No, Date), Applic (No, Date): 19930513

Non-exemplary Claims: ...4. The delivery system of claim 2 or 3 wherein the matrix is a **sugar** or **sugar derivative**. A method of producing **particulates** useful for delivering hydrophobic liquids, said **particulates** having dispersed therein a micronized hydrophobic liquid, comprising the step of subjecting a flash-flowable material to flash-flow conditions to form a solid **particulate** comprising a matrix of the flash-flowable material containing a micronized dispersion of the hydrophobic...

...16. The method of claim 15 wherein the solid matrix is **reduced** to finer particles by grinding, pulverizing or sieving...

...17. The method of claim 16 wherein the solid matrix is **reduced** to finer particles by cryogrinding...

...claim 15 wherein the flash-flowable material is a synthetic amorphous silica or porous maltodextrin aggregate.

9/3, K, AB/4 (Item 2 from file: 340)

DIALOG(R) File 340: CLAIMS(R)/US Patent

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Dialog Acc No: 2402108 IFI Acc No: 9324821

Document Type: C

LOW MOLECULAR WEIGHT CARBOHYDRATES AS ADDITIVES TO STABILIZE METAL OXIDE COMPOSITIONS

Inventors: Groman Ernest V (US); Josephson Lee (US)

Assignee: Advanced Magnetics Inc

Assignee Code: 13362

Publication (No, Date), Applic (No, Date):

US 5248492 19930928 US 92860388 19920330

Publication Kind: A

Calculated Expiration: 20100928

(Cited in 005 later patents) Document Type: CERTIFICATE OF CORRECTION

Certificate of Correction Date: 19940816

Continuation Pub (No), Applic (No, Date): US 4827945 US 8767586  
19870626

Cont.-in-part Pub (No), Applic (No, Date): US 4770183 US  
86882044 19860703; US 4951675 US 88244432 19880914

Division Pub (No), Applic (No, Date): US 5102652 US 90475618  
19900206

Priority Applic (No, Date): US 92860388 19920330; US 8767586 19870626;  
US 86882044 19860703; US 88244432 19880914; US 90475618 19900206

Abstract: This invention relates to compositions comprising a colloidal or **particulate** metal oxide which are stabilized by low molecular weight carbohydrates. The carbohydrates are characterized by the fact that a) they are not retained on the surface of the metal oxide based on the equilibrium room temperature dialysis of about 2 ml of the metal oxide composition at 0.2M metal concentration against deionized water; and b) they impart

sufficient stability to the metal oxide compositions such that the compositions can withstand heat stress without perceptible aggregation as determined by a prescribed test procedure.

Publication (No,Date), Applic (No,Date) :  
...19930928

Abstract: This invention relates to compositions comprising a colloidal or particulate metal oxide which are stabilized by low molecular weight carbohydrates. The carbohydrates are characterized by...

...to the metal oxide compositions such that the compositions can withstand heat stress without perceptible aggregation as determined by a prescribed test procedure.

Exemplary Claim: 1. An improved parenterally administrable composition, comprising a colloidal or particulate biodegradable superparamagnetic metal oxide in a physiologically acceptable carrier, which metal oxide is capable of...

...soluble, stabilizer, which stabilizer is selected from the group consisting of a low molecular weight carbohydrate, a low molecular weight linear polyalcohol, inositol and ascorbate; and which stabilizer (a) is not...

Non-exemplary Claims: 2. An improved parenterally administrable composition, comprising a colloidal or particulate biodegradable superparamagnetic metal oxide in a physiologically acceptable carrier, which metal oxide is capable of...

...soluble, stabilizer, which stabilizer is selected from the group consisting of a low molecular weight carbohydrate, a low molecular weight linear polyalcohol, inositol and ascorbate; and which stabilizer (a) is not...

...9. The composition of claim 1 or 2 wherein said low molecular weight carbohydrate is dextran having a molecular weight of about 1,000 daltons...16. A method for reducing anemia in an animal or human subject which comprises parenterally administering to such subject the ...

...18. An improved water-based ferrofluid composition, comprising a colloidal or particulate biodegradable superparamagnetic metal oxide in an acceptable carrier, which metal oxide is capable of being...

...soluble, stabilizer, which stabilizer is selected from the group consisting of a low molecular weight carbohydrate, a low molecular weight linear polyalcohol, inositol and ascorbate; and which stabilizer (a) is not...

...19. An improved water-based ferrofluid composition, comprising a colloidal or particulate biodegradable superparamagnetic metal oxide in an acceptable carrier, which metal oxide is capable of being...

...soluble, stabilizer, which stabilizer is selected from the group consisting of a low molecular weight carbohydrate, a low molecular weight linear polyalcohol, inositol and ascorbate; and which stabilizer (a) is not...

...20. A method for stabilizing a biodegradable superparamagnetic metal oxide composition comprising a colloidal or particulate metal oxide in a liquid carrier, which metal oxide is capable of being biodegraded by...

...said carrier, which stabilizer is selected from the group consisting of a low molecular weight **carbohydrate**, a low molecular weight linear polyalcohol, inositol and ascorbate; and which stabilizer (a) is not...

...21. A method for stabilizing a biodegradable superparamagnetic metal oxide composition comprising a colloidal or **particulate** metal oxide in a liquid carrier, which metal ...said carrier, which stabilizer is selected from the group consisting of a low molecular weight **carbohydrate**, a low molecular weight linear polyalcohol, inositol and ascorbate; and which stabilizer (a) is not...

...from the group consisting of parenterally administrable MR contrast agent compositions, parenterally administrable compositions for reducing anemia and ferrofluids...

9/3,K,AB/5 (Item 3 from file: 340)  
DIALOG(R) File 340: CLAIMS(R)/US Patent  
(c) 2003 IFI/CLAIMS(R). All rts. reserv.

Dialog Acc No: 2283899 IFI Acc No: 9221591

Document Type: C

ULTRASONIC CONTRAST MEDIUM COMPRISING GAS BUBBLES AND SOLID LIPOPHILIC SURFACTANT-CONTAINING MICROPARTICLES AND USE THEREOF; DIAGNOSIS MEDIUM; CONTAINING FATTY ACID

Inventors: Fritzsch Thomas (DE); Hilmann Jurgen (DE); Lange Lothar (DE); Rasor Ned S (US); Siegert Joachim (DE); Zimmermann Ingfried (DE)

Assignee: Schering AG DE

Assignee Code: 13811

Publication (No,Date), Applic (No,Date):

US 5141738 19920825 US 91670419 19910318

Publication Kind: A

Calculated Expiration: 20090825

(Cited in 094 later patents)

Cont.-in-part Pub(No),Applic(No,Date): ABANDONED

US

84600691 19840416; ABANDONED US 86917574 19861010;

ABANDONED US 89333408 19890405; ABANDONED

US 89370140 19890620

Priority Applic(No,Date): DE 3313946 19830415; DE 3313947 19830415;

DE 3834705 19881007

Abstract: Microparticles which are less than 12  $\mu\text{m}$  in size and are formed of or comprise a solid lipophilic group-containing compound having an HLB value less than about 20 produce a long lived ultrasonically echogenic entity in aqueous liquid and are useful as left heart ultrasonic contrast image enhancing agents. Contrast media for ultrasonic diagnostics comprising a liquid vehicle containing (a) suspended therein microparticles of a mixture of at least one (C8-C20)-fatty acid and at least one solid that is not a surfactant and (b) microbubbles, are especially effective upon ultrasonic imaging after intravenous administration, for the contrasting of both the right heart and left heart, of the myocardium, as well as other organs, such as liver, spleen, and kidneys.

Publication (No,Date), Applic (No,Date):

...19920825

Exemplary Claim: ...a physiologically acceptable salt of a (C8-C20) fatty acid, a polyoxyethylene fatty acid, a **sugar ester**, a sucrose glyceride, an oxyloglyceride, a saturated (C4-C20)-fatty alcohol, an unsaturated (C4...

Non-exemplary Claims: ...with an injectable aqueous liquid as an injectable ultrasonic diagnostic agent in the form of **aggregates** comprising (a) microparticles of an admixture of (i) an amount effective to render the contrast...

...a physiologically acceptable salt of a (C8-C20) fatty acid, a polyoxyethylene fatty acid, a **sugar** ester, a sucrose glyceride; an oxyloglyceride, a saturated (C4-C20)-fatty alcohol, an unsaturated (C4 ...from 5-0.01% by weight of a solid lipophilic group-containing compound effective to prevent the dissolution of the water soluble solid for at least about three seconds after the...

...a physiologically acceptable salt of a (C8-C20) fatty acid, a polyoxyethylene fatty acid, a **sugar** ester, a sucrose glyceride, an oxyloglyceride, a saturated (C4-C20)-fatty alcohol, an unsaturated (C4 ...

...claim 39, wherein the aqueous liquid is the blood stream of a living being, the **particulate** solid is non-toxic and physiologically acceptable in the amount dispersed therein and is injected...

9/3,K,AB/6 (Item 4 from file: 340)  
DIALOG(R)File 340:CLAIMS(R)/US Patent  
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Dialog Acc No: 2240911 IFI Acc No: 9208606

Document Type: C

LOW MOLECULAR WEIGHT CARBOHYDRATES AS ADDITIVES TO STABILIZE METAL OXIDE COMPOSITIONS; BIODEGRADABLE COATED PARAMAGNETIC COLLOIDS AND MANNITOL; STORAGE STABILITY; TREATING ANEMIA

Inventors: Groman Ernest V (US); Josephson Lee (US)

Assignee: Advanced Magnetics Inc

Assignee Code: 13362

Publication (No,Date), Applic (No,Date):

US 5102652 19920407 US 90475618 19900206

Publication Kind: A

Calculated Expiration: 20090407

(Cited in 006 later patents) Document Type: CERTIFICATE OF CORRECTION

Certificate of Correction Date: 19930803

Continuation Pub(No),Applic(No,Date): US 4827945 US 8767586  
19870626

Cont.-in-part Pub(No),Applic(No,Date): US 4770183 US

86882044 19860703; US 4951675 US 88244432 19880914

Priority Applic(No,Date): US 90475618 19900206; US 8767586 19870626;  
US 86882044 19860703; US 88244432 19880914

Abstract: This invention relates to compositions comprising a colloidal or particulate metal oxide which are stabilized by low molecular weight carbohydrates. The carbohydrates are characterized by the fact that a) they are not retained on the surface of the metal oxide based on the equilibrium room temperature dialysis of about 2 ml of the metal oxide composition at 0.2 M metal concentration against deionized water; and b) they impart sufficient stability to the metal oxide compositions such that the compositions can withstand heat stress without perceptible aggregation as determined by a prescribed test procedure.

Publication (No,Date), Applic (No,Date):  
...19920407

Abstract: ...to the metal oxide compositions such that the compositions can withstand heat stress without perceptible aggregation as determined by a prescribed test procedure.

Non-exemplary Claims: ...an effective amount of a stabilizer which comprises a physiologically acceptable, soluble, low molecular weight carbohydrate, which carbohydrate (a) is not retained on the surface of said metal oxide based on the equilibrium...  
...an effective amount of a stabilizer which comprises a physiologically

acceptable, soluble, low molecular weight **carbohydrate**, which **carbohydrate** (a) is not retained on the surface of said metal oxide based on the equilibrium...

...5. The composition of claim 2 or 3 in which the low molecular weight **carbohydrate** is present at a concentration of about 0.001M to about 2M...

...6. The composition of claim 2 or 3 wherein said low molecular weight **carbohydrate** has a molecular weight below 5,000 daltons...

...7. The composition of claim 6 wherein said low molecular weight **carbohydrate** is linear polyalcohol **carbohydrate**.

...8. The composition of claim 7 wherein said linear polyalcohol **carbohydrate** is selected from the group consisting of mannitol, sorbitol and glycerol...

...9. The composition of claim 6 wherein said low molecular weight **carbohydrate** is inositol...

...10. The composition of claim 2 or 3 wherein said low molecular weight **carbohydrate** is dextran having a molecular weight of about 1,000 daltons...

...11. The composition of claim 2 or 3 wherein said low molecular weight **carbohydrate** is mannitol. The composition of claim 2 or 3 wherein said low molecular weight **carbohydrate** is ascorbate...

...16. The composition of claim 2 or 3 in which said colloid or **particulate** biodegradable superparamagnetic metal oxide is selected from the group consisting of a dextran-magnetite, a magnetic **carbohydrate** matrix type particle and an albumin microsphere...

...19. A method for **reducing** anemia in an animal or human subject which comprises parenterally administering to such subject the...

...20. A method for stabilizing a biodegradable superparamagnetic metal oxide composition comprising a colloidal or **particulate** metal oxide coated by or associated with a high molecular weight polymeric substance in a...

...amount of a stabilizer to said carrier which stabilizer comprises a soluble, low molecular weight **carbohydrate**, which **carbohydrate** (a) is not retained on the surface of said metal oxide based on the equilibrium...

...21. A method for stabilizing a biodegradable superparamagnetic metal oxide composition comprising a colloidal or **particulate** metal oxide coated by or associated with a high molecular weight polymeric substance in a...

...amount of a stabilizer to said carrier which stabilizer comprises a soluble, low molecular weight **carbohydrate**, which **carbohydrate** (a) is not retained on the surface of said metal oxide based on the equilibrium...from the group consisting of parenterally administrable MR contrast agent compositions, parenterally administrable compositions for **reducing** anemia and ferrofluids.

Dialog Acc No: 1840421 IFI Acc No: 8805240

Document Type: C

PROTEIN PRODUCT BASE; REPLACEMENT FOR FAT IN MAYONNAISE OR SALAD DRESSING

Inventors: LATELLA JOSEPH (CA); SINGER NORMAN S (CA); YAMAMOTO SHOJI (CA)

Assignee: LABATT, JOHN LTD CA

Assignee Code: 04627 Document Type: REASSIGNED

Publication (No,Date), Applic (No,Date) :

US 4734287 19880329 US 84606959 19840504

Publication Kind: A

Calculated Expiration: 20050329

(Cited in 061 later patents)

Priority Applic(No,Date): US 84606959 19840504

Abstract: There is disclosed a proteinaceous, water-dispersible, macrocolloid comprising substantially non-**aggregated** particles of dairy whey protein. The particles have a mean diameter particle size distributions in a dried state, ranging from about 0.1 microns to about 2.0 microns, with less than about 2 percent of the total number of particles exceeding 3.0 microns in diameter. The majority of the said particles are substantially spheroidal when viewed at about 800 power magnification under a standard light microscope. The colloid has a substantially smooth, emulsion-like organoleptic character when hydrated. There is also disclosed a process for preparing the above described product.

Publication (No,Date), Applic (No,Date) :

...19880329

Abstract: There is disclosed a proteinaceous, water-dispersible, macrocolloid comprising substantially non-**aggregated** particles of dairy whey protein. The particles have a mean diameter particle size distributions in...

Exemplary Claim: 1. PROTEINACEOUS, WATER-DISPERSIBLE, MACROCOLLOID PARTICLES COMPRISING SUBSTANTIALLY NON-**AGGREGATED** PARTICLES OF DENATURED DAIRY WHEY PROTEIN HAVING IN A DRY STATE MEAN DIAMETER PARTICLE SIZE...

Non-exemplary Claims: 2. A hydrated proteinaceous, water-dispersible, macrocolloid particles comprising substantially non-**aggregated** particles of denatured dairy whey protein having in a dry state a mean diameter particle...

...3. An aqueous dispersion comprising a macrocolloid of substantially non-**aggregated** particles of denatured dairy whey protein having in a dry state a mean diameter particle...

...7. A proteinaceous, water-dispersible macrocolloid comprising substantially non-**aggregated** particles of denatured dairy whey protein where substantially the total combined mass of said particles... shear conditions selected so as to avoid the formation of any substantial amounts of fused **particulate** proteinaceous **aggregates** having diameters in excess of about 2 microns while at the same time forming denatured...

...shear conditions selected so as to avoid the formation of any substantial amounts of fused **particulate** proteinaceous **aggregates** having diameters in excess of about 2 microns, said process being carried out for a...whey comprising the steps of: concentrating the dairy whey to form an aqueous solution having reduced concentrations, on a percent by dry weight of total solids basis, of lactose and minerals...

...shear conditions selected so as to avoid the formation of any substantial amounts of fused **particulate** proteinaceous

**aggregates** having diameters in excess of about 2 microns while at the same time forming denatured...solution and then rehydrating to the desired total solids concentration; and evaporating excess water under **reduced** pressure so as to substantially avoid protein denaturing conditions, until the desired total solids concentration...

...44. The process according to claim 40 wherein said lactose concentration is at least partially **reduced**, following ultra-filtration, by way of enzymatic lactose hydrolysis...at least a portion of said fats by a hydrated proteinaceous macrocolloid comprising substantially non-aggregated particles of denatured dairy whey protein having mean diameter particle size distributions, in a dry...

...54. The product of claim 53 wherein said product is a **sugar-reduced** product including an artificial sweetener in an amount sufficient to organoleptically balance the **reduced** amount of **sugar** contained in said product.

?